Sanitized Copy Approved for Release 2011/09/23 : CIA-RDP80-00809A000700050135-5

CLASSIFICATION CONFIDENTIAL ~~CONFIDENTIAL~~
~~SECURITY INFORMATION~~

CENTRAL INTELLIGENCE AGENCY

INFORMATION FROM
FOREIGN DOCUMENTS OR RADIO BROADCASTS

REPORT

CD NO.

50X1-HUM

COUNTRY	USSR
SUBJECT	Economic - Technological, bearing industry
HOW PUBLISHED	Books
WHERE PUBLISHED	USSR
DATE PUBLISHED	1950
LANGUAGE	Russian

DATE OF INFORMATION 1950

DATE DIST. 11 Mar 1952

NO. OF PAGES 11

SUPPLEMENT TO REPORT NO.

THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES WITHIN THE MEANING OF ESPIONAGE ACT 50 U. S. C., 31 AND 32, AS AMENDED. ITS TRANSMISSION OR THE REVELATION OF ITS CONTENTS IN ANY MANNER TO AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW. REPRODUCTION OF THIS FORM IS PROHIBITED.

THIS IS UNEVALUATED INFORMATION

SOURCE Books as indicated.

LISTS OF ANTIFRICTION BEARINGS USED IN TWO USSR TRUCKS, AUTOMOBILE, AND TRACTOR

This report consists of tables giving data on the types, application, dimensions, and quantity of antifriction bearings used in the GAZ-51 truck, the ZIS-150 truck, the M-20 Pobeda automobile, and the S-80 tractor, taken from four Soviet books as indicated.

Numbers in parentheses refer to appended sources.

/See tables on the following pages./

CLASSIFICATION ~~CONFIDENTIAL~~ CONFIDENTIAL

STATE	X	NAVY	X	NSRB	DISTRIBUTION								
ARMY	X	AIR	X	FBI									

Sanitized Copy Approved for Release 2011/09/23 : CIA-RDP80-00809A000700050135-5

Sanitized Copy Approved for Release 2011/09/23 : CIA-RDP80-00809A000700050135-5

CONFIDENTIAL

CONFIDENTIAL

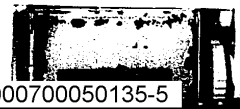
Basic Data on Antifriction Bearings Used in the GAZ-51 Truck (1)

Gor'kiy Plant No	Catalog Conventional Designation	Type Bearing	Application	Basic Dimensions (mm) Inner Diam	Outer Diam	Width	Quantity per Truck (2)
M-7600	60203	Single-row radial ball bearing	Transmission main drive gear bearing (guiding end)	17	40	12	1
AA-7025	209	Single-row radial ball bearing	Transmission main drive gear bearing	45	85	19	1
AA-7120-A2	864904	Roller bearing with long cylindrical rollers	Transmission main shaft pilot bearing (guiding end)	20.612	33.325	35.0	1
AA-7065	307	Single-row radial ball bearing	Transmission main shaft bearing	35	80	21	1
AA-7118-A2	64905	Roller bearing with long cylindrical rollers	Transmission countershaft gear bearing	25.40	41.288, 41.99(2)	60.4	2
M-7580	788911	Single-thrust ball bearing	Clutch release sleeve bearing	52.387	84.55	20.74	1
51-4924	804704	Needle bearing	Universal joint needle bearing, assembled	22	35	26.5	12
A-7025	208	Single-row radial ball bearing	Countershaft support bearing	40	80	18	1

Adjoins page 3 here.

CONFIDENTIAL

50X1-HUM



Sanitized Copy Approved for Release 2011/09/23 : CIA-RDP80-00809A000700050135-5

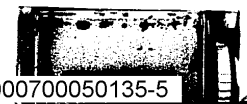
Sanitized Copy Approved for Release 2011/09/23 : CIA-RDP80-00809A000700050135-5

[Adjoins page 2 here.]

51-2402025	27709	Taper roller bearing	Rear axle drive pinion bearing	45	100	29 32(2)	2	
AA-4625-A2	922906	Cylindrical roller bearing with short rollers	Rear axle drive pinion bearing (rear)	31.793	62.025	27	[No data]	
51-2403036	7113	Taper roller bearing	Differential case bearing	65	110	30	[No data]	
51-3102020	7514	Taper roller bearing	Rear wheel hub bearing (inner)	70	125	31 33.5(2)	2	
51-2403036	7113	Taper roller bearing	Rear wheel hub bearing (outer)	65	110	30	2	
51-3001020	98206	Single-thrust ball bearing	Steering knuckle pivot bearing	30.1 30(2)	53	16	2	
51-3103020	7608	Taper roller bearing	Front wheel hub bearing (inner)	40	90	33 35.5(2)	2	
51-3103025	7605	Taper roller bearing	Front wheel hub bearing (outer)	25	62	24 25.5(2)	2	
51-3401071	977908	Taper roller bearing	Steering worm bearing	40.62	66	12	1	
51-3401053	987910	Taper roller bearing	Steering worm bearing	40.62	68	19.5	1	
M-4625	922205	Cylindrical roller bearing with short rollers	Steering gear shaft bearing (end)	25	52	15	1	
M-3517	64704	Roller bearing with long cylindrical rollers	Steering gear shaft bearing (upper)	20	30	18 18.3(2)	1	

[Adjoins page 4 here.]

50X1-HUM



Sanitized Copy Approved for Release 2011/09/23 : CIA-RDP80-00809A000700050135-5

Sanitized Copy Approved for Release 2011/09/23 : CIA-RDP80-00809A000700050135-5

CONFIDENTIAL

Additional page 3 here

12-1307022	330078	—	Water pump shaft bearing	16 -	30 30(2)	122 40(2)	1

Additional Data on Antifriction Bearings Used in the GAZ-51 Truck (2)

51-2403036	807513	Taper roller bearing	Spider pinion housing	65	110	30.5	2
11-7659	—	Needles	Needle bearing of tension lever of the clutch pressure disk	—	1,6	9	57
11-7583	—	Roller bearing	Roller bearing of tension lever of the clutch pressure disk	—	5.5	9	3
20-1601072	688911	Special single-thrust ball bearing	Clutch release sleeve bearing	52.38	84.5	20.7	1
51-2402041	102605	Cylindrical roller bearing with inner and outer rings	End of axle drive pinion	25	62	24	1
51-3401062-Z	776901	Special double-row radial ball bearings with steering shaft roller	Steering gear shaft bearing	12.75	47	38	1
—	202	Single-row radial ball bearing	Generator bearing (commutator side)	15	35	11	1
—	203	Single-row radial ball bearing	Generator bearing (drive side)	17	40	12	1

CONFIDENTIAL

50X1-HUM

Sanitized Copy Approved for Release 2011/09/23 : CIA-RDP80-00809A000700050135-5

Sanitized Copy Approved for Release 2011/09/23 : CIA-RDP80-00809A000700050135-5

CONFIDENTIAL
CONFIDENTIAL

Antifriction Bearings Used in the ZIS-150 Truck (1)

Blueprint No	Catalog Conventional Designation	Type Bearing	Place Installed	Basic Dimensions (mm) Inner Diam	Outer Diam	Width
110-1701225	60205	Single-row radial ball bearing	Transmission primary shaft (front)	25	52	15
120-1701032	50213	Single-row radial ball bearing	Transmission primary shaft	65	120	23
120-1701066	GPZ-12307	Cylindrical roller bearing with short rollers	Transmission countershaft (front)	35	80	21
120-1701073	50407	Single-row radial ball bearing	Transmission countershaft (rear)	35	100	25
120-1701180	64706	Roller bearing with long cylindrical rollers	Transmission main shaft pilot bearing and reverse gear	30	42	44.1
120-1701190	50311	Single-row radial ball bearing	Transmission main shaft rear bearing	55	120	29
120-1802053	986711	Single-row angular contact ball bearing	Clutch release	55	90	23
120-2201044	GPZ-804705	Needle bearing	Universal joint	25.15	39	26
120-2402025	7610-A	Taper roller bearing	Differential axle drive bevel pinion and spur pinion	50	110	40
120-2402041	7613-A	Taper roller bearing	Differential axle drive bevel pinion (rear)	65	140	51.5

CONFIDENTIAL
CONFIDENTIAL

50X1-HUM

Sanitized Copy Approved for Release 2011/09/23 : CIA-RDP80-00809A000700050135-5

Sanitized Copy Approved for Release 2011/09/23 : CIA-RDP80-00809A000700050135-5

Blueprint Number	Catalog Conventional Designation	Type Bearing	Place Installed	Basic Dimensions in mm Inner Diam.	Outer Diam.	Width
120-2403036	7215	Taper roller bearing	Differential	75	130	26
120-3104060	7815	Taper roller bearing	Rear wheel hub	75	130	43.5
120-3103025	7608	Taper roller bearing	Front wheel hub (outer)	40	99	35.5
120-3103035	7611	Taper roller bearing	Front wheel hub (inner)	55	120	46
120-3401121	977909	Taper roller bearing	Steering gear worm	46.673	72	14
120-3401120	836906	Single-row angular contact ball bearing	Steering gear	28	42	18
120-3401072	—	Needle roller	Steering gear shaft roller	Rollers 16 mm long and 3 mm in diameter		
120-3509112	50207	Single-row radial ball bearing	Compressor crank-shaft (front)	35	72	17
120-3509113	207	Single-row radial ball bearing	Compressor crank-shaft (rear)	35	72	17
120-1307051	20303	Single-row radial ball bearing	Water pump shaft (front)	17	47	15.5
120-1307050	20703	Single-row radial ball bearing	Water pump shaft (rear)	17	40	14

CONFIDENTIAL

50X1-HUM

Sanitized Copy Approved for Release 2011/09/23 : CIA-RDP80-00809A000700050135-5

Sanitized Copy Approved for Release 2011/09/23 : CIA-RDP80-00809A000700050135-5

CONFIDENTIAL

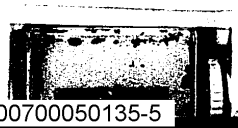
CONFIDENTIAL

Antifriction Bearings Used in the M-20 Pobeda Automobile (3)

Gor'kiy Plant No	State Bearing Plant No	Type Bearing	Place Installed	Basic Dimensions (mm) Inner Diam	Outer Diam	Width	Quantity per Automobile
12-1307022	330073	Special double-row ball bearing with shaft	Water pump shaft	—	30	40	1
11-7569	—	Needle	Tension lever of the clutch pressure disk	—	1.6	9	57
11-7583	—	Roller	Tension lever of the clutch pressure disk	—	5.5	9	3
20-1601072	688911	Special single-thrust ball bearing	Clutch release sleeve	52.38	84.58	20.74	1
M-7025	50208	Single-row radial ball bearing with lock ring groove	Transmission drive shaft	40	80	18	1
M-7065	50306	Single-row radial ball bearing with lock ring groove	Transmission main shaft	30	72	19	1
M-7118	64903	Cylindrical roller bearing without rings	Transmission countershaft and front end of main shaft	19.05	28.6	36.7	2
M-7121	64904	Cylindrical roller bearing without rings	Transmission countershaft	19.05	28.6	43.2	1
M-7600	60203	Single-row radial ball bearing with shield	Front end of transmission drive shaft (in the flywheel)	17	40	12	1

CONFIDENTIAL

50X1-HUM



Sanitized Copy Approved for Release 2011/09/23 : CIA-RDP80-00809A000700050135-5

Sanitized Copy Approved for Release 2011/09/23 : CIA-RDP80-00809A000700050135-5

CONFIDENTIAL

Gor'kiy Plant Number	State Bearing Plant Number	Type Bearing	Place Installed	Basic Dimensions in mm Inner Diam.	Outer Diam.	Width	Quantity per Automobile
12-2201033	70L702	Needle (20 needles 3 mm in diameter and 14 mm long)	Universal joint center cross	16.5	30	21	8
M-4625	922205	Cylindrical roller bearing with outer ring	End of axle drive pinion	25	52	15	1
M-4615	57707	Double-row taper roller bearing	Axle drive pinion	35	80	57	1
M-4220	7209A	Taper roller bearing	Spider pinion housing	45	85	20.5	2
11-3133	108905	Special single-thrust ball bearing	Steering knuckle	25	51	15.875	2
20-3103020	26906	Single-row angular contact ball bearing	Front wheel hub (inner)	28	65	30	2
20-3103025	26704	Single-row angular contact ball bearing	Front wheel hub (outer)	20	52	20	2
11-1225	864911	Cylindrical roller bearing without rings	Rear wheel hub	52.4	71.5	43.3	2
M-3517	64704	Cylindrical roller bearing without rings	Upper part of steering shaft	20	30	18.3	1
M-4625	922205	Cylindrical roller bearing with outer ring	Steering gear shaft, end connection	25	52	15	1

/Adjoins page 9 here./

CONFIDENTIAL

50X1-HUM

Sanitized Copy Approved for Release 2011/09/23 : CIA-RDP80-00809A000700050135-5

Sanitized Copy Approved for Release 2011/09/23 : CIA-RDP80-00809A000700050135-5

/Adjoins page 9 here./

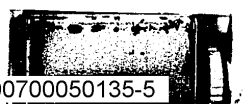
M-3552	977907 (outer ring)	Taper bearing	Steering worm (upper end)	—	49.25	11	1
M-3553	987908 (outer ring)	Taper bearing	Steering worm (lower end)	—	58	17	1
20-3401071	977907-A	Separator and rollers of taper bearing	Steering worm	—	—	—	2
20-3401072	——	Needles	Steering gear shaft roller		2	10	42
——	202	Single-row radial ball bearing	Generator (commutator side)	15	35	11	1
——	203	Single-row radial ball bearing	Generator (drive side)	17	40	12	1

Antifriction Bearings Used in the S-80 Tractor (4)

Blueprint No	Conventional Designation	Type Bearing	Place Installed	Basic Dimensions (mm) Inner Diam	Outer Diam	Width	Quantity per Tractor
3915	203 (OST 4121-39)	Single-row radial ball bearing	Governor of the diesel engine	17	40	12	1
3918	208 (OST 4121-39)	Single-row radial ball bearing	Starting motor clutch sleeve shaft and reducing gear	40	80	18	2
3919	719 GPZ (State Bearing Plant)	Cylindrical roller bearing with spiral rollers	Starting motor crankshaft	20	34	25	1

/Adjoins page 10 here./

50X1-HUM



Sanitized Copy Approved for Release 2011/09/23 : CIA-RDP80-00809A000700050135-5

Sanitized Copy Approved for Release 2011/09/23 : CIA-RDP80-00809A000700050135-5

CONFIDENTIAL

Adjoins page 9 here.

39120	210 (OST 6121-39)	Single-row radial ball bearing	Starting motor crankshaft	50	90	20	1
39121	211 (OST 6121-39)	Single-row radial ball bearing	Starting motor crankshaft	55	100	21	1
39101	35914 4 GPI	Roller bearing	Main friction clutch	68	100	34	1
39108	7312 (OST 6451)	Taper roller bearing	Side friction clutch	60	130	34	2
39109	215 (OST 6121-39)	Single-row radial ball bearing	Side friction clutch	75	130	25	2
39110	213 (OST 6121-39)	Radial ball bearing	Transmission (upper shaft)	65	120	23	1
39111	408310 3 GPI	Cylindrical roller bearing	Transmission (upper shaft and countershaft)	50	110	27	2
39112	502208 3 GPI	Cylindrical roller bearing	Transmission (idler gear shaft)	40	70	18	2
39113	402715 3 GPI	Cylindrical roller bearing	Transmission (lower shaft)	75 x 160 x 37 x 45			1
39114	310 (OST 6121-39)	Single-row radial ball bearing	Transmission (countershaft and lower shaft)	50	110	27	2
39115	206 (OST 6121-39)	Single-row radial ball bearing	Diesel fan	30	62	16	2

Adjoins page 11 here.

CONFIDENTIAL

50X1-HUM

Sanitized Copy Approved for Release 2011/09/23 : CIA-RDP80-00809A000700050135-5

Sanitized Copy Approved for Release 2011/09/23 : CIA-RDP80-00809A000700050135-5

CONFIDENTIAL

/Adjoins page 10 here./

39116	42312 (GOST 294-41)	Cylindrical roller bearing	gear	60	130	31	6
39117	42314 (GOST 294-41)	Cylindrical roller bearing	Side reduction gear	70	150	35	2
39118	67728 4 GPZ	Taper roller bearing	Side reduction gear	140	230	58	2
39119	7723 4 GPZ	Taper roller bearing	Side reduction gear	115	190	49	2
39120	8103 (GOST 7219-39)	Single-thrust ball bearing	Starting motor governor	17	30	9	1
39122	94702 3 GPZ	Needle bearing	Diesel governor	15	20	12	2
39121	905 GPZ	Single-row, single-thrust ball bearing	Diesel governor	25	48	15.5	1

SOURCES

1. Moscow, Avtotransportniy Spravochnik (Automobile Transport Manual), Mashgiz, 1950. All subsequent data on the GAZ-51 except the column headed "Quantity per Truck" and where otherwise indicated is from this source.
2. Three page photostat from unidentified book.
3. Moscow, Katalog Zapasnykh Chastey Legkovogo Avtomobilya M-20 Pobeda (Catalog of Spare Parts for the M-20 Pobeda Automobile), Mashgiz, 1950.
4. Photograph of page from unidentified book.

CONFIDENTIAL

50X1-HUM

Sanitized Copy Approved for Release 2011/09/23 : CIA-RDP80-00809A000700050135-5